

REMARKS

Claims 1-19 were pending. Claims 8, 10-12, and 14-15 have been canceled and new claims 20-21 have been added. Claims 1-7, 9, 13, and 19 have been amended. Support for the amendment and new claims is found, for example, on page 12, lines 16-34.

Claims 1, 3-4, 7, 10, 12-13, 15-16, and 18-19 were rejected as anticipated by YOSHIOKA et al. 7,149,682. Claims 1 and 19 have been amended to include the subject matter of claims 8 and 11 that were not rejected on this basis, and reconsideration and withdrawal of the rejection are respectfully requested.

Claim 2 was rejected as unpatentable over YOSHIOKA et al. in view of GIBSON et al. 6,336,092; claim 5 was rejected as unpatentable over YOSHIOKA et al. in view of SAVIC et al. 5,327,521; and claim 6 was rejected as unpatentable over YOSHIOKA et al. in view of OJARD 5,966,687. These claims depend from amended claim 1 and are allowable therewith for the reasons set forth below. Reconsideration and withdrawal of the rejections are respectfully requested.

Claims 8 and 9 were rejected as unpatentable over YOSHIOKA et al. in view of JEONG 5,873,728 and CAVE et al. 5,362,240 and claims 11, 14, and 17 were rejected as unpatentable over YOSHIOKA et al. in view of CAVE et al. Reconsideration and withdrawal of the rejections are respectfully requested.

CAVE et al. disclose a method of practicing a language being studied, wherein an audio signal emitted by a subject is reproduced to the auditory organs of the subject after real time processing. However, CAVE et al. do not disclose the acquiring, emitting, and first spectral analysis steps and do not disclose comparison of the spectra of the model audio signal and the imitation audio signal and the correction of the imitation audio signal as a function of the result of the comparison.

JEONG discloses a method of practicing a language being studied wherein a model audio signal to be imitated and an imitation audio signal are recorded and output sequentially so that the user may compare the two sounds. Thus, this reference discloses a step of emitting the model audio signal to be imitated. However, JEONG does not disclose a method wherein the audio signal emitted by the subject is reproduced to the auditory organs of the subject after real time processing. In JEONG, the audio signal emitted by the subject is not reproduced in real time, but is sequentially output with the model audio signal to be imitated. Moreover, JEONG does not disclose any processing of the model audio signal to be imitated or of the imitation audio signal.

Consequently, the combination of CAVE et al. and JEONG does not disclose the steps of,

- first spectral analysis of a model audio signal that has been emitted;

- comparison of the spectra of the model audio signal and the imitation audio signal; and

- correction of the imitation audio signal as a function of the result of the comparison.

Further, it would not be obvious to one of skill in the art to apply real time processing as taught by YOSHIOKA et al. to the method suggested by the combination of CAVE et al. and JEONG. YOSHIOKA et al. disclose a karaoke method wherein a voice signal of a mimicking singer is converted so that a reproduced voice sounds like that of the target singer rather than that of the mimicking singer. Thus, in YOSHIOKA et al, the aim of the audio intonation technique is only to modify the voice signal emitted by the mimicking singer in order to sound like that of the target singer. YOSHIOKA et al. do not disclose an audio intonation technique performed so that a subject can hear his or her own voice modified, and thus the emission of the signal emitted by the subject is modified because the sound information that he receives when speaking is modified in real time.

Moreover, one of skill in the art would not have applied the audio intonation technique disclosed by YOSHIOKA et al. to the method of practicing a language disclosed in the combination of CAVE et al. and JEONG because this method of practicing a language comprises a step of emitting the model audio signal to be imitated before the step of acquiring the imitation audio signal that has been imitated by the subject. In

YOSHIOKA et al., since the mimicking singer has to sing along to a karaoke accompaniment (column 23, lines 15-20), the model audio signal (the song to be imitated) cannot be emitted to the auditory organs of the subject before the subject imitates the model audio signal (that is, before the singer sings the song.)

Thus, YOSHIOKA et al. do not disclose a method that includes acquisition, emission and analysis of a model audio signal, and acquisition, analysis, comparison, and correction in real time of an imitated audio signal.

In addition, none of the applied references discloses the step of first spectral analysis of a model audio signal which has been emitted.

Accordingly, the amended claims avoid the rejections under §102 and §103.

In view of the present amendment and the foregoing remarks, it is believed that the present application has been placed in condition for allowance. Reconsideration and allowance are respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any

overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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